

Claims

1. Selvedge forming apparatus (4, 5, 6) for a weaving machine, the weaving machine comprising a device (7) for beating-up the inserted weft threads (30) while moving to a beat-up line (36), the selvedge forming apparatus comprising a device (20) for introducing an end (30A) of a weft thread (30), which has been inserted into a shed, into a subsequently formed shed, characterized in that the selvedge forming apparatus (4, 5, 6) comprises a blowing device (50, 61) arrangeable close to the plane of a selvedge (16, 17) of the fabric (2, 3) being woven for blowing an air-stream onto the introduced end (30A) of the weft thread (30) which air-stream is essentially directed towards the beat-up line (36).
2. Selvedge forming apparatus according to claim 1, characterized in that the blowing device (50, 61) has at least one blowing opening (51, 68) which may be arranged at a selvedge (16, 17) above or beneath the fabric (2, 3) being woven.
3. Selvedge forming apparatus according to claim 1 or 2, characterized in that the blowing device (50) is provided with a blowing opening (57) in the form of a slot which extends essentially parallel to the beat-up line (36).
4. Selvedge forming apparatus according to claim 1 or 2, characterized in that blowing device (50, 61) is provided with several blowing openings (51, 68) which are arranged in one line (37) extending essentially parallel to the beat-up line (36).

5. Selvedge forming apparatus according to anyone of claims 1 to 4, characterized in that the at least one blowing opening (51) is arranged in a side of a hollow needle (54) which in operation is positioned essentially parallel to the beat-up line (36).
6. Selvedge forming apparatus according to anyone of claims 1 to 5, characterized in that the blowing device (50, 61) is adjustably held such that its distance to the beat-up line (36) and / or its blowing direction may be adjusted.
7. Selvedge forming apparatus according to anyone of claims 1 to 6, characterized in that the blowing device (50) is moveable by means of one or more drive units (28) such that its blowing direction and / or its position along the beat-up line (36) may be varied.
8. Selvedge forming apparatus according to anyone of claims 1 to 7, characterized by further comprising a guiding element (56) for guiding the upper side and / or the under side of a selvedge (16, 17) of a fabric (2, 3) after the beat-up line (36).
9. Selvedge forming apparatus according to anyone of claims 1 to 8, characterized by further comprising guiding elements (67) for guiding the edge of the selvedge (16, 17) of a fabric (2, 3) after the beat-up line (36).
10. Weaving machine comprising  
a device for forming sheds of warp threads (14),  
a device for inserting weft threads into the sheds,  
a device (7) for beating up the inserted weft threads at a beat-up line (36),  
and a selvedge forming apparatus (4, 5, 6) comprising a device (20) for introducing an end (30A) of an inserted weft thread (30) into a subsequently formed shed,

characterized in that the selvedge forming apparatus (4, 5, 6) comprises a blowing device (50, 61) arranged close to the plane of a selvedge (16, 17) being formed for blowing an air-stream onto the end (30A) of the weft thread (30) being introduced into the shed which air-stream is essentially directed towards the beat-up line (36).

11. Weaving machine according to claim 10, characterized in that the blowing device (50,61) has at least one blowing opening (51, 68) which is arranged at a selvedge (16, 17) above or below the fabric (2, 3) being woven.
12. Weaving machine according to claim 10 or 11, characterized in that the device for beating-up includes a reed (7) provided with blades forming an U-shaped guiding channel, and the blowing device (50, 61), during the beating up, is extending into the U-shaped guiding channel of the reed.
13. Weaving machine according to anyone of claims 10 to 12, characterized in that the blowing device (50, 61, 63) includes a hollow needle (54) provided with at least one blowing opening (51, 57).
14. Weaving machine according to claim 13, characterized in that the hollow needle (54) extends substantially parallel to the beat-up line (36) and is provided with at least one blowing opening (51, 57) at its side.
15. Weaving machine according to anyone of claims 10 to 13, characterized in that at least one hollow needle (63) is directed approximately to the beat-up line (36) and is provided at its end with a blowing opening (51).
16. Weaving machine according to anyone of claims 10 to 15, characterized in that the at least one hollow needle (50, 63) is attached to a

support (8) for the fabric (2, 3) being woven, which support (8) is arranged after the beat-up line (36).

17. Weaving machine according to anyone of the claims 10 to 16, characterized in that a support (8) for the fabric (2, 3) being woven arranged after the beat-up line (36) which support is designed as a blowing device having at least one blowing opening essentially directed towards the beat-up line (36).
18. Method for forming a selvedge (16, 17) at a fabric (2, 3) during weaving comprising the steps of  
inserting a weft thread (30) into a shed formed of warp threads (14),  
beating-up the inserted weft thread by a device moving to a beat-up line (36),  
introducing an end (30A) of the inserted weft thread (30) into a subsequently formed shed,  
inserting the next weft thread (30B) into that subsequently formed shed, and beating-up this weft thread (30B) together with the end (30A) of the previously inserted weft thread (30) at the beat-up line (36),  
characterized in that before beating up the end (30A) of the weft thread (30) an air-stream is blown onto said end (30A) of the weft thread (30) introduced into the shed which air-stream is essentially directed towards the beat-up line (36).
19. Method according to claim 18, characterized in that the air-stream is directed from below or above the plane of the fabric (2, 3) towards the beat-up line (36).
20. Method according to claim 18 or 19, characterized in that the air-stream blows the introduced end (30A) of the weft thread (30) into a guide channel of a reed (7) which is moving toward the beat-up line (36).

21. Method according to anyone of claims 18, 19 or 20, characterized in that the end (30A) of the inserted weft thread (30) is introduced into the subsequent shed by means of blowing that end into that subsequent shed.

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